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## THE FIRST HUNDRED YEARS OF THE

## NEW YORK ACADEMY OF SCIENCES

By Dr. JOHN HENDLEY BARNHART NEW YORK BOTANICAL GARDEN

THE College of Physicians and Surgeons was the one institution in the city of New York, a hundred years ago, which afforded a stimulus to the study of the natural sciences. This was due to the inspiring influence of a single member of the college faculty, Professor Samuel Latham Mitchill, whose name is not as familiar as it should be to the scientists of In 1816 he was fifty-two years old. He had studied both medicine and law: had served two terms in the legislature of New York, four terms in Congress, and one in the Senate of the United States. For eight years he had been professor of natural history in the medical college; his personal magnetism had attracted many of the students, and he had awakened in them a more than passing interest in the subjects taught by him. There can be no doubt that it was from Dr. Mitchill that the impetus came for the establishment of a scientific society among the young men who gathered about him, and for this if for nothing else he should be held in loving remembrance on this centennial occasion.

It was in the hall of the College of Physicans and Surgeons, in Barclay Street, on the twenty-ninth day of January, 1817, that a few kindred spirits gathered to consider the establishment of an institution devoted to the study of natural history. Dr. Mitchill occupied the chair. Seven more preliminary meetings were held at the college within a month, and finally, all the arrangements being completed, and a constitution adopted and engrossed, the Lyceum of Natural History held its first formal meeting in the evening of the twenty-fourth day of February, at Harmony Hall, a public house on the southeast corner of Duane and William Streets. The first twenty-one members signed the constitution at this time, and the first officers were elected.

Dr. Mitchill was the president; his nephew, Dr. Caspar Wistar Eddy, was the first vice-president; the second vice-president was Rev. Frederick Christian Schaeffer, the young

pastor of Christ Lutheran Church; Dr. John Wakefield Francis, one of Dr. Mitchill's younger colleagues on the faculty of the medical college, was corresponding secretary; the recording secretary was John Brodhead Beck, then a student of medicine; and the treasurer was Dr. Benjamin P. Kissam, who had received his medical degree the preceding year. It is noteworthy that, of the twenty-one signers of the constitution at this meeting, a majority were students, graduates or members of the faculty of the College of Physicians and Surgeons, and as far as known none but the president was more than twenty-seven years old. Among those added during the next three months, and counted as "original members," were several older men, and some who were in no way connected with the medical college, but of these few were ever active in the affairs of the Lyceum.

For nearly fifteen years, from April, 1817, to September, 1831, the Lyceum enjoyed the hospitality of the Common Council of the city, sharing with other societies, rent free, the use of the "New York Institution," popularly known as the "Old Almshouse," in City Hall Park. Here the Lyceum had rooms for its meetings, and for the preservation and display of its collections; these grew apace, not only by gifts, but by the incorporation of material collected specifically for the "cabinet" by Lyceum members. Dr. Mitchill wrote:

The members called it the Lyceum, in remembrance of the school founded by that sublime genius, Aristotle, at Athens. Disciples of the "mighty Stagirite," they determined, after his example, to be Peripatetics, and to explore and expound the arcana of nature as they walked.

During the first year of the society, 1817, we have mention of collecting trips by Mitchill, Townsend, Torrey, Rafinesque, and Knevels. Within ten years the cabinet of the Lyceum comprised one of the most extensive collections of natural objects in America, excelling all others in its series of minerals, fossils, reptiles, fishes and echinoderms. It is evident that one of the chief purposes of the society from its establishment was the formation of such a museum, and its success was phenomenal.

Soon after the establishment of the Lyceum, the formation of a library was commenced, but this consisted largely of books loaned by members and subsequently withdrawn, so that after an interval of seven years the number of books actually owned by the society was less than two hundred. An old organization known as the United States Military and Philosophical Society, however, having become extinct, with about \$2,500 in its treasury, the surviving members transferred this sum to the Lyceum



SAMUEL LATHAM MITCHILL
President of the Lyceum of Natural History, 1817 to 1823.

for use as a library fund. This happened in 1825, and the library then began to grow rapidly and steadily. There are various statistical reports and catalogues recording the number of books at different dates, but it is impossible to use these for comparison, chiefly because of failure to distinguish clearly between the number of volumes and the number of titles.

The first publication of the Lyceum was undoubtedly the printed Constitution, laid on the table at the meeting of May 19, 1817. Technical scientific publication commenced with the issue of the first number of the Annals, in 1823. Two volumes had been completed five years later; these initiated the long series of Annals, Proceedings, Transactions, and Memoirs, that have spread the fame of the earlier Lyceum and later Academy throughout the world of science.

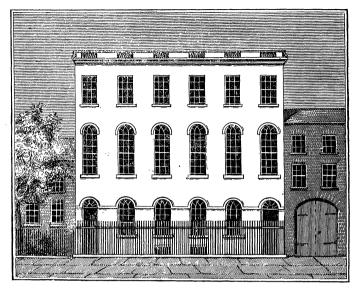


MICHAEL IDVORSKY PUPIN

President of the New York Academy of Sciences, 1916 to 1917.

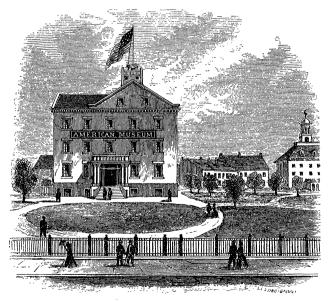
In 1829 the members of the Lyceum learned that they might at any time be required to vacate the four rooms in the New York Institution occupied by them for their meetings, library, and collections, and they began at once to look about for new quarters. A building-fund was inaugurated, but the project had not even reached the stage of selection of a building-site when removal became imperative. The library and collections were temporarily deposited in other rooms in the same building during the winter of 1830–31; the following summer they were removed to new rooms in the New York Dispensary, on the corner of White and Center Streets, and in these rooms the Lyceum met for the first time September 4, 1831.

The Dispensary remained the home of the Lyceum for nearly five years. Meanwhile, the building project was being pushed

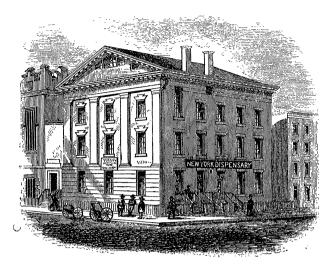


COLLEGE OF PHYSICIANS AND SURGEONS, BARCLAY STREET. Where the Lyceum of Natural History was Organized, 1817.

with more energy than caution. In January, 1835, two lots were purchased at 561-565 Broadway, south of Prince Street; construction was commenced in May. A year later, May 9, 1836, the society held its first meeting in its new building.

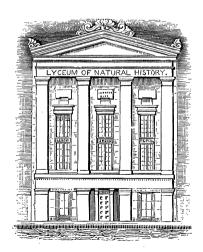


New York Institution, The "Old Almshouse.". Western End, Facing Broadway. Home of the Lyceum from 1817 to 1831.



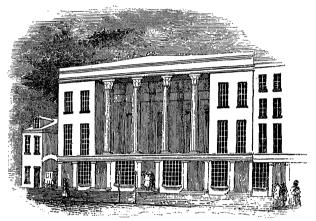
New York Dispensary, White and Centre Streets. Home of the Lyceum from 1831 to 1836.

There was now ample room for the proper accommodation of the collections and library, and there were stores on the street level and rooms on the upper floors to contribute an income. About fifteen thousand dollars in cash had been invested in the land and building; but this was in a period of financial inflation, and the three mortgages on the property totalled thirty-five thousand dollars. During the years of depression that followed, the financial troubles of the Lyceum went from bad to worse, until finally, in February, 1844, the property was sold at



THE LYCEUM BUILDING, No. 563 BROADWAY. Erected 1835-6; Lost by Foreclosure of Mortgage, 1844.

auction, under legal proceedings, for thirty-seven thousand dollars, barely enough to cover the amount of the mortgages and the unpaid interest thereon. "And the Lyceum found itself out of debt and out of a home, with a valuable library and large collections, and no place to put them." For a year, the collections were stored and the library deposited in the buildings of New York University, while the meetings were held in the home of the president, Major Joseph Delafield, at 104 Franklin Street.



STUYVESANT INSTITUTE, UNIVERSITY MEDICAL COLLEGE. Home of the Lyceum from 1844 to 1851.

After a period of much uncertainty, arrangements were finally completed for rooms with the University Medical College, in Stuyvesant Institute, 659 Broadway, opposite Bond Street. Here the library was satisfactorily accommodated, and a considerable part of the collections could be displayed, and here the Lyceum met for the first time April 7, 1845. In 1851, the medical college sold the building and erected a new one on Fourteenth Street, on the site since long occupied by Tammany Hall. The Lyceum accepted the offer of a meeting-room in the new building, but the collections, with minor exceptions, had to be boxed and stored in the cellar, while the library was deposited temporarily with the Mercantile Library Association.

For fifteen years the Lyceum held its meetings in the Fourteenth Street building, until, on the night of May 21, 1866, this was totally destroyed by fire. The society which had lost its building in 1844 was now without collections; after half a century of enthusiastic work and sacrifice, it was without material possessions other than its library. Well may the members have been discouraged, but they were undismayed; their work went

on. For a year the meetings were held in the rooms of the Geographical Society, in Clinton Hall, the same building in which the Lyceum's library had been housed for years.



UNIVERSITY MEDICAL COLLEGE, FOURTEENTH STREET. Erected 1851; Destroyed by Fire, 1866. Home of the Lyceum throughout this Period.

The loss of the collections, as viewed with the perspective of later years, was a blessing in disguise. It relieved the Lyceum of a heavy and ever-increasing burden of responsibility, and paved the way for the establishment of a great independently endowed museum. Such an institution was incorporated three years later, became an actuality within a few more years, and to-day is the scientific center of our great metropolis.

In 1867 the Lyceum removed to Mott Memorial Hall, 64 Madison Avenue; here its library was also installed, and both society and library remained until May, 1878. The semi-centennial of the organization of the Lyceum, in 1867, was allowed to pass by without any formal celebration; but early the following year, April 29, 1868, a public meeting was held in the Great Hall of Cooper Union, in honor of the fiftieth anniversary of the acceptance of the Charter. The historical sketch presented at that time by Professor John Torrey, the only surviving original member, was not preserved.

While the society was located at Mott Memorial Hall, under the presidency of Professor John Strong Newberry, a strong movement sprang up for a change of name. Of course there were many conservative members, particularly those who did not wish to abandon the name with which years of association had linked their affections; but it was urged that the name "Lyceum" had been put to such varied uses that it had lost any appropriateness it might have possessed when originally chosen, that "Natural History" no longer indicated the actual scope of the society's activities, that there was no other organization in New York City devoted to science in general and to science alone, and that the name "The Lyceum of Natural History in the City of New York" was unnecessarily cumber-After much discussion, the alteration of the name was approved by the required three-fourths vote; the Supreme Court confirmed the change, and it was accepted by the society February 2, 1876, when the corporate name became The New York Academy of Sciences. At the same time a special class of membership was introduced, called Fellows, "chosen from among the Resident Members in virtue of scientific attainments or services," and most of the detailed routine business of the society was delegated to a central committee called the Council.



AMERICAN MUSEUM OF NATURAL HISTORY. Present Home of the New York Academy of Sciences,

In May, 1878, the Academy deposited its library with the American Museum of Natural History, and changed its meeting-place to the building of the New York Academy of Medicine, then in West Thirty-first Street. Most of the active members of the Academy of Sciences, however, were connected in some way with Columbia College, and the following decade witnessed an increasingly close relationship between the two institutions. Beginning with October, 1883, the meetings of the Academy were held in Hamilton Hall, and three years later the Academy's library was removed from the Museum of Natural History to the Herbarium room in the college library building.

This arrangement continued until Columbia University removed to its present location in 1897.

During the earlier years at Columbia, the Academy held the even tenor of its way, maintaining its dignified position but failing to keep abreast of the rapid development of science in the city. A history of the Academy, by the recording secretary. Mr. H. L. Fairchild, was read in abstract at the meeting of May 10, 1886, and published in full the following May. This handsome volume was not very conveniently arranged for ready reference, and is somewhat unbalanced in the emphasis placed upon the various activities of the society; but it is an invaluable storehouse of reliable information concerning the sixty years of the Lyceum and the first ten of the Academy. One fact, brought out by the inscription on the title-page and the explanation in the preface, is by no means creditable to the Academy, and emphasizes its lack of enterprise at this particular time: the author, after long and faithful labor in the preparation of the manuscript, was permitted to publish the volume at his own expense.

Just how much influence the appearance of this history may have had upon the subsequent development of the Academy is uncertain. It did not call direct attention to the almost moribund condition of the organization, but it did show clearly that the Academy ought to be the leading factor in the scientific life of New York. Such was the wish of those who guided the destinies of the Academy, and they soon began to work diligently with this in view. During the few following years the active membership of the Academy gradually but slowly decreased; this limited the available income, but at the same time resulted in a more compact working body, so that the small membership should not be regarded as a true index to the efficiency of the organization.

The year 1891 witnessed a great forward movement affecting the scientific life of New York. From time to time increasing specialization had resulted in the formation of a number of scientific societies in the city, wholly independent and unrelated except through more or less overlapping of their membership. Organic union of these diverse elements was at no time practicable, yet the desirability of cooperation was self-evident. The first formal suggestion of a plan for such cooperation appears in a communication presented by Dr. N. L. Britton at a meeting of the Council of the Academy held in Room 22, Hamilton Hall, on the afternoon of December 22, 1890. It was a special meeting, called to act upon a revision of the by-

laws; but that revision proved of far less importance than the other matter then discussed. Dr. Britton's communication very concisely outlined the need for concerted action, suggested a method for its accomplishment, and enumerated some of the ways in which the proposed alliance could be of practical value. The plan was referred to a committee, approved, submitted to other scientific societies of the city, and ultimately adopted in agreement with even the minor details of the original communication: and before the close of the summer vacation season of 1891 the Scientific Alliance of New York was fully organized and had entered upon its work. For sixteen years the Alliance was a powerful adjunct of local scientific progress, and paved the way for the Greater Academy of to-day. It issued an annual directory listing the members, and a monthly bulletin announcing the meetings, of all of the component societies. held two public joint meetings, and in many ways helped to mutualize scientific activities and to bring science prominently before the public. The success of the Alliance was due in large measure to Charles Finney Cox, its first and only president.

One of the primary objects of the Scientific Alliance, the erection of a great building which should serve as a home for all of the societies, and as a scientific center for the city, was never realized. It may vet come; but present opinion seems to favor the strengthening of existing institutions rather than the establishment of new ones. In fact, this sentiment no doubt encouraged the final dissolution of the Alliance, and the adoption of the new plan which grouped the younger organizations of a more specialized nature about the old historic Academy as affiliated societies. The new idea was first promulgated by Mr. William Dutcher, one of the delegates of the Linnæan Society of New York, at the meeting of the Council of the Scientific Alliance held at the Museum of Natural History, January 24, 1906; it met with instant approval, and forthwith was referred to the various societies for action. This was favorable in every case, and the final meeting of the Council of the Alliance was held April 18, 1907; the corporation was then consolidated with that of the New York Academy of Sciences, and the treasurer was instructed to turn over to the Academy all funds of the Alliance.

During the sixteen years of existence of the Scientific Alliance, the work of the Academy had been greatly stimulated. In 1893 there was unveiled in Trinity Cemetery a monument to Audubon, erected by popular subscription through the efforts and under the direction of a committee of the Academy ap-

pointed about five years before. A series of annual receptions and exhibitions to illustrate the recent progress of science was inaugurated in 1894, and repeated in the five succeeding years; these did much to direct the attention of the public both to scientific progress and to the work of the Academy. The organization of sections within the Academy, attempted more or less sporadically in former years, was developed more successfully than ever before.

In 1897, during the summer, Columbia University moved from its old location at Madison Avenue and Forty-ninth Street, to the new site on Morningside Heights. The following winter the Academy held its meetings at Mott Memorial Library, 64 Madison Avenue, while the library remained, practically inaccessible, in the old library building of the University on Fortyninth Street. The University authorities, utterly regardless of their own interests, refused to allow space in their great new library building for the books of the Academy; they did, however, grudgingly consent to the use of a small room, no. 507, in Schermerhorn Hall. An agreement to this effect was signed in February, 1898; the books, however, were not removed to Schermerhorn Hall until much later in the year, and were then stored in the basement until the following summer. during the four years that the library remained at Columbia after its removal to the new site, was it properly accommodated or reasonably accessible.

For the three seasons of 1898–1901, the Academy held its meetings in the rooms of the American Society of Mechanical Engineers, at 12 West 31st Street; then for one season in the assembly room of the Chemists Club, at 108 West 55th Street. Finally, fifteen years ago, in 1902, the Academy accepted an invitation from the American Museum of Natural History to make this building its permanent meeting-place. In March, 1903, the library of the Academy was brought here to the Museum, where it is properly appreciated, is faithfully and efficiently cared for, and may readily be consulted. In 1904 an office for the use of the Recording Secretary of the Academy was established here, and since that time all of the interests and activities of the Academy have centered in this building.

In 1906, as already mentioned, a proposal came from the Scientific Alliance that the other members of the Alliance should become affiliated with the Academy. This plan was approved by all of the societies concerned; the necessary amendments to the constitution and by-laws were adopted November 5, and the Alliance was wholly merged into the Academy within

the following six months. The past ten years have abundantly confirmed the wisdom of this act. The Academy and its affiliated societies, now seven in number, have enjoyed unprecedented prosperity, and have extended their activities in various directions. Perhaps the most noteworthy events of this decade have been the public celebrations of the bicentenary of the birth of Linnæus and the centenary of the birth of Darwin; the inauguration of a natural history survey of Porto Rico, in cooperation with the government of that island; and the attempt now being made to provide the Academy with adequate endowment.

The effort to condense the history of a hundred years into a brief address has compelled the selection of merely a few of the salient points: no mention has been made even of the names of many who have devoted years of service to the welfare of the Academy. There has been no lack of loyalty; few have ever resigned merely owing to loss of interest. We have now in the Academy fifty whose membership has extended over a quarter of the century: fourteen of these were members in the days of the Lyceum, before the name was altered forty-one years ago, and four have been associated with our history throughout half of its hundred years. The association is continuous, while members come and go, yet upon the exertions of individuals depends the success of the organization. May we of to-day and our successors of the coming years derive inspiration from the honorable record of the past, and emulate the devotion of our predecessors, which we surely never can excel!